

Even more impressive was the achievement of the stealthy B-2 aircraft which flew its missions from Whiteman Air Force Base in Missouri, 5,000 miles from the target zone. An F-16 can carry two thousand-pound bombs, and a B-1B can carry 24 of these so that a single mission by a B-1B bomber might be equivalent to 12 sorties by an F-16.

Both the B-1B and the B-2 were the creations of an industry supported by NASA facilities. Neither would have been built without thousands of hours of wind tunnel and simulator time devoted to them in government-owned NASA facilities.

Even more important was the application of NASA research results to both aircraft. These results range from aerodynamics, materials, and flight controls to the human factors that had to be considered to protect the pilots and the crew from the environments that they would face in accomplishing their missions.

Finally, the Kosovo campaign was the one in which unpiloted aircraft were extensively used for reconnaissance that turned out to be a decisive factor in the campaign. Unpiloted vehicles have been around for a long time and were used as target drones and as experimental test vehicles during experiments that traditionally involved the destruction of the vehicle.

However, recent advances once again pioneered by NASA in flight control systems and in sensors have made it possible to use unpiloted vehicles for many other purposes. Probably the first application of unpiloted vehicles requiring sophisticated technology was the highly maneuverable aircraft test vehicle. This was a small, unpiloted aircraft with a sophisticated flight control system designed to perform experiments in maneuvering regimes that had not yet been explored with piloted aircraft. The experiments done by NASA with this vehicle during the 1970s demonstrated to all concerned the utility of unpiloted aircraft for sophisticated purposes.

In the last two decades, a large variety of unpiloted aircraft have been developed and with the recent advances in control systems and communication systems and in the ability to transmit intelligence data in real-time to command posts, unpiloted reconnaissance aircraft have come into their own.

A special example is the "Predator" unpiloted reconnaissance aircraft that played a very important role in Kosovo. In one incident, a "Predator" vehicle spotted a concentration of Serb troops on the ground and with accurate pictures transmitted by satellite link reported the concentration and its location to the command post. This information was then used to divert a flight of B-52s, bombers that had already been on another mission, to the troop concentration which was accu-

rately located by the GPS signal transmitted by the "Predator."

The B-52s bombed the troops, killing most of them on the ground. This kind of coordinated attack with heavy bombers guided to the target using unpiloted aircraft and a sophisticated command and control system was a decisive element to secure the victory in this campaign.

The technology to do all of this could not have been developed without the aeronautical research performed in NASA's research centers. The research performed to create the aircraft systems described here dates back to the 1970s, somewhere between 20 and 30 years ago.

In 1970, the aeronautics budget of NASA was approximately 25 percent of the agency's budget, some \$1 billion out of a total of \$4 billion. It was this heavy investment in aeronautical technology that in a very real sense made the victory this year in Kosovo possible.

Today, however, we have a very serious problem. The aeronautics budget in NASA today is a much smaller fraction than it was in 1970, about \$2 billion out of \$14 billion or just 14 percent. In terms of spending power when inflation is factored into this calculation, NASA's investment in aeronautical research today is about half of what it was 30 years ago.

One result of this massive reduction in aeronautical research has been that many important NASA aeronautical research facilities have had to be shut down entirely or perhaps mothballed. This has forced some U.S. aerospace firms to use European facilities. More important, it has become difficult to attract the best talent into NASA's aeronautical research enterprises.

In the past year, this situation has reached the crisis stage because further reductions in NASA's aeronautics research are now being proposed. In view of this circumstance, it is legitimate to ask the question where the knowledge and the technology will come from to make victory possible in another Kosovo perhaps 20 years from now.

The sad fact is that we are no longer making the investments necessary to maintain the kind of Air Force that has the capability that we have today. This situation can only be changed by reversing the trend in aeronautical research funding and reinvesting in this critically important technology. An investment in NASA aeronautics program of about \$4 billion annually is what is required to maintain our effort.

General Arnold's statement of more than half a century ago is as valid as it is was then. The security of the United States and the stability of the world depend on a relatively small investment in advanced aeronautical technology so that NASA can continue to do the work which will allow the United States to maintain its leader-

ship and superiority in military aviation.

I urge all Members to support this effort.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to:

Ms. CARSON (at the request of Mr. GEPHARDT) for today on account of official business.

Mr. HASTINGS of Florida (at the request of Mr. GEPHARDT) for today on account of official business.

Mr. WICKER (at the request of Mr. ARMEY) for today on account of official business.

Mr. MANZULLO (at the request of Mr. ARMEY) for today on account of illness.

Mr. ROGAN (at the request of Mr. ARMEY) for today on account of a death in the family.

Mr. SHAW (at the request of Mr. ARMEY) for today on account of official business.

Mr. KINGSTON (at the request of Mr. ARMEY) for today and September 14 on account of impending Hurricane Floyd.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

(The following Members (at the request of Mr. MCNULTY) to revise and extend their remarks and include extraneous material:)

Ms. JACKSON-LEE of Texas, for 5 minutes, today.

Mr. FALEOMAVAEGA, for 5 minutes, today.

Mr. RUSH, for 5 minutes, today.

Mr. MCGOVERN, for 5 minutes, today.

Mr. CUMMINGS, for 5 minutes, today.

(The following Members (at the request of Mr. WELDON of Florida) to revise and extend their remarks and include extraneous material:)

Mr. GREEN of Wisconsin, for 5 minutes, September 15.

Mr. METCALF, for 5 minutes, today.

Mr. EHLERS, for 5 minutes, today.

Mr. WELDON of Florida, for 5 minutes, today.

Mr. FOSSELLA, for 5 minutes, today.

ADJOURNMENT

Mr. PICKETT. Mr. Speaker, I move that the House do now adjourn.

The motion was agreed to; accordingly (at 8 o'clock and 25 minutes p.m.), under its previous order, the House adjourned until tomorrow, Tuesday, September 14, 1999, at 9 a.m. for morning hour debates.

EXECUTIVE COMMUNICATIONS, ETC.

Under clause 8 of rule XII, executive communications were taken from the Speaker's table and referred as follows: